

**TRANSLATION**

**PATENT COOPERATION TREATY**

**PCT**

**INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY**

(Chapter II of the Patent Cooperation Treaty)

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference <b>P804090/WO/1</b>	<b>FOR FURTHER ACTION</b>	See Form PCT/IPEA/416
International application No. <b>PCT/EP2004/009889</b>	International filing date ( <i>day/month/year</i> ) <b>04.09.2004</b>	Priority date ( <i>day/month/year</i> ) <b>23.09.2003</b>
International Patent Classification (IPC) or national classification and IPC  <b>B60K31/00, G01S13/93</b>		
Applicant <b>DAIMLERCHRYSLER AG</b>		

1. This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36.
2. This REPORT consists of a total of <u>7</u> sheets, including this cover sheet.
3. This report is also accompanied by ANNEXES, comprising: a. <input checked="" type="checkbox"/> (sent to the applicant and to the International Bureau) a total of <u>4</u> sheets, as follows: <input checked="" type="checkbox"/> sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions). <input type="checkbox"/> sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in item 4 of Box No. I and the Supplemental Box. b. <input type="checkbox"/> (sent to the International Bureau only) a total of (indicate type and number of electronic carrier(s))  _____, containing a sequence listing and/or tables related thereto, in computer readable form only, as indicated in the Supplemental Box Relating to Sequence Listing (see Section 802 of the Administrative Instructions).
4. This report contains indications relating to the following items: <input checked="" type="checkbox"/> Box No. I Basis of the report <input type="checkbox"/> Box No. II Priority <input type="checkbox"/> Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability <input type="checkbox"/> Box No. IV Lack of unity of invention <input checked="" type="checkbox"/> Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement <input type="checkbox"/> Box No. VI Certain documents cited <input type="checkbox"/> Box No. VII Certain defects in the international application <input checked="" type="checkbox"/> Box No. VIII Certain observations on the international application

Date of submission of the demand	Date of completion of this report
Name and mailing address of the IPEA/EP	Authorized officer
Facsimile No.	Telephone No.

## INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.

PCT/EP2004/009889

## Box No. I Basis of the report

1. With regard to the language, this report is based on the international application in the language in which it was filed, unless otherwise indicated under this item.
- ☐ This report is based on translations from the original language into the following language \_\_\_\_\_, which is the language of a translation furnished for the purposes of:
- ☐ international search (Rule 12.3 and 23.1(b))
- ☐ publication of the international application (Rule 12.4)
- ☐ international preliminary examination (Rule 55.2 and/or 55.3)
2. With regard to the elements of the international application, this report is based on *(replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report)*:
- ☐ the international application as originally filed/furnished
- ☒ the description:
- pages 1-21 as originally filed/furnished
- pages\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_
- pages\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_
- ☒ the claims:
- nos. \_\_\_\_\_ as originally filed/furnished
- nos.\* \_\_\_\_\_ as amended (together with any statement) under Article 19
- nos.\* 1-16 received by this Authority on 17.06.2005 with letter of 25.02.2005
- nos.\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_
- ☒ the drawings:
- sheets 1/3-3/3 as originally filed/furnished
- sheets\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_
- sheets\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_
- ☐ a sequence listing and/or any related table(s) – see Supplemental Box Relating to Sequence Listing.
3. ☐ The amendments have resulted in the cancellation of:
- ☐ the description, pages \_\_\_\_\_
- ☐ the claims, nos. \_\_\_\_\_
- ☐ the drawings, sheets/figs \_\_\_\_\_
- ☐ the sequence listing (*specify*): \_\_\_\_\_
- ☐ any table(s) related to sequence listing (*specify*): \_\_\_\_\_
4. ☐ This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).
- ☐ the description, pages \_\_\_\_\_
- ☐ the claims, nos. \_\_\_\_\_
- ☐ the drawings, sheets/figs \_\_\_\_\_
- ☐ the sequence listing (*specify*): \_\_\_\_\_
- ☐ any table(s) related to sequence listing (*specify*): \_\_\_\_\_

\* If item 4 applies, some or all of those sheets may be marked "superseded."

## INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.

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Box No. V	Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement		
1.	Statement		
	Novelty (N)	Claims <u>1-16</u>	YES
		Claims _____	NO
	Inventive step (IS)	Claims <u>1-16</u>	YES
		Claims _____	NO
	Industrial applicability (IA)	Claims <u>1-16</u>	YES
		Claims _____	NO
2.	Citations and explanations (Rule 70.7)		
1	<b>PRIOR ART</b>		
	Reference is made to the following document:		
	D1: DE 101 18 265 A (BOSCH GMBH ROBERT)		
	17 October 2002 (2002-10-17)		
2	<b>NOVELTY</b>		
2.1	<b>Claims 1-14</b>		
2.1.1	Document D1 is considered the prior art closest to the subject matter of claim 1 and discloses:		
	<i>a method for recognising lane changing procedures for a vehicle, in which at least one observation variable is determined which describes the lane changing behaviour of another observed vehicle (column 3, lines 22-28), a lane change variable being determined on the basis of the at least one observation variable, said lane change variable characterising the other vehicle's intention to change lane from a lane associated with that</i>		

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	<p><i>vehicle (claim 1).</i></p> <p>2.1.2 The subject matter of claim 1 thus differs from that known from D1 in that the lane change <i>variable</i> describes the probability of an imminent lane change by the other vehicle, it being concluded that a lane change is imminent when the probability is greater than a characteristic threshold value.</p> <p>2.1.3 The subject matter of claim 1 is thus novel (PCT Article 33(2)).</p> <p>2.1.4 The subject matter of dependent claims 2-14 is therefore also novel (PCT Article 33(2)).</p> <p><b>2.2 Claims 15, 16</b></p> <p>2.2.1 Document D1 is considered the prior art closest to the subject matter of claim 1 and discloses:</p> <p><i>a device for recognising lane changing procedures for a vehicle, comprising observation means (10) for observing another vehicle (22, 24, 26, 28), which are provided for determining at least one observation variable that describes the lane change behaviour of the observed other vehicle, an evaluation unit (12) determining a lane change variable on the basis of the at least one observation variable, said lane change variable characterising the other vehicle's intention to</i></p>

Box No. V	Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
	<p><i>change lane from a lane associated with that vehicle.</i></p> <p>2.2.2 The subject matter of claim 15 thus differs from that known from D1 in that the lane change <i>variable</i> describes the probability of an imminent lane change by the other vehicle, the evaluation unit concluding that a lane change is imminent when the probability is greater than a characteristic threshold value.</p> <p>2.2.3 The subject matter of claim 15 is thus novel (PCT Article 33(2)).</p> <p>2.2.4 The subject matter of dependent claim 16 is therefore also novel (PCT Article 33(2)).</p> <p>3       <b>INVENTIVE STEP</b></p> <p>3.1     <b>Claims 1-16</b></p> <p>3.1.1 The current invention can be considered to address the problem of devising a method and a device of the aforementioned type such that a lane change made by another vehicle can be recognised early.</p> <p>3.1.2 In order to solve that problem, claims 1 and 15 of the current application propose, respectively, a method and a device in which the lane change <i>variable</i> describes the probability of an imminent lane change by the other vehicle, the evaluation unit concluding that a lane change is imminent</p>

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	<p>when the probability is greater than a characteristic threshold value.</p> <p>3.1.3 The solution to the problem as proposed in claims 1 and 15 of the present application therefore involves an inventive step (PCT Article 33(3)).</p> <p>3.1.4 Claim 16 is dependent on claim 15 and claims 2-14 are dependent on claim 1 and therefore likewise meet the PCT requirements for inventive step.</p> <p>4       <b>INDUSTRIAL APPLICABILITY</b></p> <p>4.1      All the claims are industrially applicable in the field of vehicle control systems (PCT Article 33(4)).</p>

**Box No. VIII** Certain observations on the international application

The following observations on the clarity of the claims, description, and drawings or on the question whether the claims are fully supported by the description, are made:

**1 CLARITY**

- 1.1 Claims 1 and 15 do not meet the requirements of EPC Article 84, since the subject matter for which protection is sought is not clearly defined. These claims attempt to define the subject matter by the result to be achieved. Such a definition can be accepted only under the conditions as set out in the Guidelines, C-III, 4.7. In the present case this type of wording is not acceptable, since it appears possible to describe the subject matter of the application in more specific terms, that is by indicating the measures with which the effect is achieved.